

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claims 1-12 Cancelled

Claim 13 (Previously Presented): The process according to Claim 24, wherein said nitrogen compound is selected from the group consisting of ammonia, ammonium hydroxide, hydroxylamine, alkanolamines, alkylamines and mixtures thereof.

Claim 14 (Previously Presented): The process according to Claim 24, wherein said nitrogen compound is selected from the group consisting of ammonia, ammonium hydroxide, monoethanolamine, diethanolamine and mixtures thereof.

Claim 15 (Previously Presented): The process according to Claim 24, wherein said at least one acid monomer is neutralized with said nitrogen compound up to a neutralization level of from 10 to 100%.

Claim 16 (Previously Presented): The process according to Claim 24, wherein monomers based on acrylic acid, methacrylic acid or derivatives of these carboxylic acids are subjected to polymerization.

Claim 17 (Canceled)

Claim 18 (Previously Presented): The process of Claim 24, wherein said comonomer is vinyl acetate.

Claim 19 (Previously Presented): The process according to Claim 24, wherein at least one crosslinker based on a bi- or polyfunctional monomer is used in addition.

Claim 20 (Previously Presented): The process according to Claim 24, wherein the polymer or copolymer is heated at a temperature of from 140 to 180°C.

Claim 21 (Previously Presented): The process according to Claim 24, wherein the water-soluble or water-swellaable polymer or copolymer has a content of residual monomer of less than 50 ppm.

Claim 22 (Previously Presented): The process according to Claim 24, wherein the water-soluble or water-swellaable polymer or copolymer has a content of residual monomer of less than 30 ppm.

Claim 23 (Previously Presented): The process according to Claim 24, wherein the water-soluble or water-swellaable polymer or copolymer has a residual content of acrylamide of less than 10 ppm.

Claim 24 (Previously Presented): A process for producing a water-soluble or water-swellaable polymer or copolymer, comprising:

providing at least one acid monomer alone, or in combination with at least one comonomer;

partially or completely neutralizing said at least one monomer with at least one basic nitrogen compound;

free-radical polymerizing said at least one monomer alone, or in combination with said at least one comonomer to form said water-soluble or water-swellaable polymer or copolymer,

wherein said free-radical polymerization is started at a temperature of from 0 to 50°C and is performed in aqueous solution at a maximum temperature of no more than 102-104°C, to provide an aqueous polymer or copolymer solution or an aqueous polymer or copolymer gel; and,

subsequent to completion of said free-radical polymerization, heating said water-soluble or water-swellaable polymer or copolymer at a temperature of from 120 to 240°C; wherein said heating is carried out for a time period between 10 minutes and 2 hours.

Claim 25 (Previously Presented): The process according to Claim 24, wherein said nitrogen compound is selected from the group consisting of ammonia, ammonium hydroxide, aliphatic monoamines, aliphatic polyamines, cycloaliphatic monoamines, cycloaliphatic polyamines, aromatic monoamines, aromatic polyamines, heterocyclic amines, hydroxylamine, alkanolamines and mixtures thereof.

Claim 26 (Previously Presented): The process according to Claim 24, wherein said at least one monomer is selected from the group consisting of acrylic acid, methacrylic acid, maleic acid, fumaric acid, itaconic acid, vinyl sulfonic acid, acrylamidopropanesulfonic acid, and mixtures thereof.

Claim 27 (Previously Presented): The process according to Claim 24, wherein said at least one comonomer is selected from the group consisting of acrylonitrile, methacrylonitrile, N,N-dimethylacryl amide, vinylpyrrolidone, vinylpyridine, vinyl acetate, hydroxyl group-containing esters of polymerizable acids, amino group-containing esters of

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polymerizable acids, amino group-containing amides of polymerizable acids, ammonium group-containing esters of polymerizable acids, ammonium group-containing amides of polymerizable acids, C₁-C₁₀ alcohol esters of acrylic acid, C₁-C₁₀ alcohol esters of methacrylic acid, C₁-C₁₀ alcohol esters of a mixture of acrylic acid and methacrylic acid, esters of acrylic acid with styrene, esters of acrylic acid with alkylated styrene, esters of a mixture of acrylic acid and methacrylic acid with styrene, esters of methacrylic acid with styrene, esters of methacrylic acid with alkylated styrene, esters of a mixture of acrylic acid and methacrylic acid with alkylated styrene.

Claim 28 (Canceled):

Claim 29 (Previously Presented): The process according to Claim 20, wherein said heating is carried out for a time period between 10 minutes and 1 hour.

Claim 30 (Previously Presented): The process according to Claim 24, wherein said heating is carried out for a time period between 10 minutes and 1 hour.

Claim 31 (Canceled):

Claim 32 (Previously Presented): The process according to Claim 24, wherein said free radical polymerization is started at a temperature of from 5 to 25°C.

Claim 33 (Previously Presented): The process according to Claim 24, wherein the polymer or copolymer is heated at a temperature of 160°C or 180°C.

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Claim 34 (New): The process according to Claim 24, wherein said heating is carried out for a time period of from 10 minutes to 90 minutes.

BASIS FOR THE AMENDMENT

New Claim 34 has been added as supported, for example, by the Examples and at page 9, first full paragraph.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 13-16, 18-27, 29-30, 32, and 33-34 will now be active in this application.

INTERVIEW SUMMARY

Applicants wish to thank Examiner Zalukaeva for the helpful and courteous discussion with Applicants' Representative on June 14, 2005. The Amendment and Rule 132 Declaration filed May 9, 2005, were discussed. The Examiner appeared favorably convinced by the arguments set forth in the Amendment of May 9, 2005. However, she pointed out that it may be advantageous to limit the heating time to a maximum of 90 minutes. She agreed that support was found in the Examples and at page 9, first full paragraph. The appropriate dependent Claim has been added.